

Notice of Allowability

Application No.

10/787,025

Examiner

Marie Antoinette Cabucos

Applicant(s)

NILSSON, JACK

Art Unit

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 4/24/2006 and application filed 2/25/2004.
2. ☒ The allowed claim(s) is/are 1-35.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

Allowable Subject Matter

Claims 1-35 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art neither discloses nor suggests the following limitations in the combination with the remaining elements as disclosed in claims 1 and 15:

Regarding claim 1, limitation of a ground plane beam antenna for transmitting and/or receiving radio frequency (RF) signals comprising a driven element positioned co-linearly with and between said at least one reflector element and said at least one director element; and an electrically conductive ground plane being electrically connected to said at least one reflector element and said at least one director element at said second ends, and being electrically isolated from said driven element, the ground plane comprising a first electrically conductive sheet having a width of about $\frac{1}{4}$ wavelength of a tuned radio frequency.

Regarding claim 15, limitation of a method to construct a ground plane beam antenna for transmitting and/or receiving radio frequency (RF) signals comprising positioning said driven element co-linearly with and between said at least one reflector element and said at least one director element; generating an electrically conductive ground plane, the ground plane comprising a first electrically conductive sheet having a width of about $\frac{1}{4}$ wavelength of at least one predetermined radio frequency; and electrically connecting said ground plane to said second ends of said reflector element

and said at least one director element and keeping said ground plane electrically isolated from said driven element.

Regarding claims 2-14 and 16-35, for being dependent on an allowable claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments, see remarks, filed 4/24/2006, with respect to claims have been fully considered and are persuasive. The rejection of claims has been withdrawn.

Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art of record to Gueguen (US Patent no. 3,846,799) discloses an electronically step-by-step rotated directive radiation beam antenna.

Prior art of record to Wheeler (US Patent no. 4,633,265) discloses a low frequency/high frequency omnidirectional antenna formed of plural dipoles extending from a common center.

Prior art of record to Moilanen (US Patent no. 5,561,439) discloses a car phone antenna.

Prior art of record to Sharp et al (US Patent no. 5,990,845) discloses a broadband fan cone direction finding antenna and array.

Prior art of record to Vinson et al (US Patent no. 6,100,855) discloses a ground plane for GPS patch antenna.

Prior art of record to Ohira et al (US Patent no. 6,407,719) discloses an array antenna.

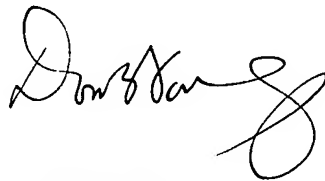
Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marie Antoinette Cabucos whose telephone number is 571-272-8582. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marie Antoinette Cabucos
Examiner
Art Unit 2163

A handwritten signature in black ink, appearing to read "Don Wong", with a stylized flourish at the end.

DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100